1. A speech recognition apparatus comprising:

a hierarchical dictionary section stored with a plurality of speech recognition dictionaries having a plurality of reference speech signals with mutual association in a hierarchical fashion;

extracting means for extracting a proper speech recognition dictionary from said hierarchical dictionary section;

list storing means for storing the extracted speech recognition dictionary;

speech input means for inputting a speech;

recognizing means for comparing an input speech with the reference speech information in the speech recognition dictionary stored in said list storing means to recognize the speech;

wherein said extracting means extracts a speech recognition dictionary belonging to a lower hierarchical level of the reference speech information corresponding to the speech recognized and said list storing means updates and stores the extracted speech recognition dictionary, said speech recognition apparatus;

wherein reference speech information representative of hierarchical-level skipping is prepared in a predetermined speech recognition dictionary so that, when said

48

recognizing means recognizes a speech input corresponding to the reference speech information representative of hierarchical-level skipping, said extracting means extracts, and updates and stores to said list storing means, a speech recognition dictionary belonging to a lower hierarchical level of the reference speech information stored in said list storing means.

2. The speech recognition apparatus according to claim 1, further comprising as the speech recognition dictionary a kind-based dictionary storing kinds of facilities and a location dictionary storing facility names belonging to the kinds of the facilities.

3. The speech recognition apparatus according to claim 1, further comprising as the speech recognition dictionary a region dictionary storing region names and a location dictionary storing facility names of facilities existing in any of the regions.

4. The speech recognition apparatus according to claim 1, further comprising as the speech recognition dictionary a region dictionary storing region names, a kind-based dictionary storing kind names of the facilities and a location dictionary storing facility names of facilities existing in any of the regions and belonging to any of the kinds;

wherein, after the reference speech information representative of hierarchical-level skipping is recognized in said kind-based name selecting level, said extracting means extracts the region dictionary.

5. The speech recognition apparatus according to claim 1, further comprising:

number determining means for determining the number of pieces of reference speech information in the speech recognition dictionary belonging to a lower hierarchical level of the reference speech information recognized by said recognizing means;

input-speech storing means for storing a speech inputted, and similar-word storing means for recognizing similar reference speech information by sequentially comparing by said recognizing means between a speech stored in said input-speech storing means and reference speech information stored in said list storing means to store the similar reference speech information; and

determining means provided in said number determining means to determine whether the number of words/phrases of the reference speech information in the speech recognition dictionary belonging to the lower hierarchical level of the reference speech information corresponding to a speech recognized exceeds a reference value or not;

wherein when determined as the predetermined number or greater, said extracting means extracting, and storing to said list storing means, a speech recognition dictionary as a part of the speech recognition dictionary belonging to the lower hierarchical level;

wherein after said recognizing means completes comparison with the reference speech information stored in said list storing means, said extracting means extracts an unextracted dictionary of among the speech recognition dictionaries belonging to the lower hierarchical level to be updated and stored by said list storing means;

wherein said recognizing means sequentially compares between reference speech information belonging to a dictionary updated and stored in said list storing means and the speech stored in said input-speech storing means to recognize similar reference speech information; and

wherein said similar-word storing means additionally stores the similar reference speech information newly recognized.

6. The speech recognition apparatus according to claim 5, wherein said recognizing means recognizes, and renders as a recognition result, one of all similar words stored in said similar-word storing means.

7. The speech recognition apparatus according to claim 5, wherein a plurality of pieces of similar reference

speech information of among the reference speech information stored in said list storing means are stored in said similar-word storing means, comprising selecting means for selecting further a recognition result from among all pieces of similar reference speech information stored in said similar-word storing means.

8. A speech recognition apparatus comprising:

a hierarchical dictionary section stored with a plurality of speech recognition dictionaries having a plurality of pieces of reference speech information;

extracting means for extracting one dictionary of among the plurality of speech recognition dictionaries;

list storing means for storing the dictionary extracted, speech input means for inputting a speech;

an input-speech storing means for storing an input speech;

recognizing means for sequentially comparing between a speech stored in said input-speech storing means and the reference speech information stored in said list storing means to recognize similar reference speech information; and

similar-word storing means for storing the similar pieces of the reference speech information;

wherein after said recognizing means completes a comparison between all pieces of the reference speech

information belonging to the dictionaries stored in said list storing means and a speech stored in said input-speech storing means, said extracting means extracts from the speech recognition dictionary an unextracted dictionary to be updated and stored by said list storing means;

wherein said recognizing means compares between reference speech information belonging to a dictionary updated and stored to said list storing means and the speech stored in said input-speech storing means to recognize similar reference speech information; and

wherein said similar-word storing means additionally stores the similar reference speech information newly recognized.

9. The speech recognition apparatus according to claim 8, further comprising selecting means for selecting further a recognition result from among a plurality of pieces of reference speech information stored in said similar-word storing means.

10. A speech recognition method that reference speech information is extracted from a plurality of speech recognition dictionaries in a hierarchical structure to compare extracted reference speech information with an input speech thereby recognizing the speech, said method comprising the steps of:

preparing reference speech information representative of hierarchical-level skipping in a predetermined speech recognition dictionary so that, when recognizing an input of a speech corresponding to the reference speech information representative of hierarchical-level skipping; and

extracting a part of the speech recognition dictionary belonging to a lower hierarchical level of reference speech information being compared to perform speech recognition.

11. The speech recognition method according to claim 10, wherein determination is made on the number of pieces of reference speech information in a speech recognition dictionary belonging to a lower hierarchical level of recognized reference speech information so that, when determined that the number exceeds a reference value, a part of the speech recognition dictionary belonging to the lower hierarchical level is extracted and compared to recognize similar reference speech information, and after completing comparison with the extracted reference speech information;

an unextracted speech recognition dictionary being extracted from the speech recognition dictionaries belonging to the lower hierarchical level and compared to thereby recognize similar reference speech information; and

reference speech information corresponding to an input speech being further selected from among a plurality of similar pieces of the reference speech information.

12. A speech recognition method comprising the steps of:

extracting one speech recognition dictionary from a plurality of speech recognition dictionaries having a plurality of pieces of reference speech information;

comparing the reference speech information in an extracted speech recognition dictionary with an input speech;

extracting another speech recognition dictionary different from the one speech recognition dictionary after completing a comparison with the reference speech information due to the speech recognition dictionary extracted; and

updating the reference speech information in the extracted speech recognition dictionary as reference speech information to be compared and comparison is made between updated reference speech information and the input speech to thereby recognize the speech inputted.